



2040 DOW CENTER
April 11, 2001

The Dow Chemical Company
Midland, Michigan 48674

VIA FACSIMILE
801-984-9410

Ms Stephanie Black
Headwaters Incorporated
11778 South Election Drive, Suite 210
Salt Lake City, UT 84020

Dear Ms. Black:

You have inquired about the characterization of Dow latex, Covol 298-1, according to the "Toxic Characteristic Leachate Procedure" (TCLP). We have not analyzed this latex by the TCLP procedure. Therefore, we can not report any data measured by the TCLP regarding the "toxicity characteristic constituents" specifically defined in this procedure. However, based on our knowledge of this latex and our manufacturing process, we would not expect any of the "toxicity characteristic constituents" to be present in Covol 298-1 at levels exceeding their regulatory limits, as defined in the TCLP procedure.

You have inquired about emissions from this latex during storage or in process. Covol 298-1 is a polymer dispersed in water. Clearly, the major volatile component in our latex is water. The latex as delivered is nominally 50 weight percent water. The polymer component of our latex, the other 50 weight percent, has minimal volatility, due to the very high molecular weight of this material. The only volatile components of the polymer portion of this latex, are any residual unreacted monomers and any trace level by-products formed during the polymerization process. We do not routinely report the levels of these volatile organics in our latex products as part of our specifications, but typically, the total amount of all volatile organics does not exceed 0.1% of the total net latex weight (1000 ppm). Dow uses an extraction/gas chromatographic method for the direct determination of these residual organics in our latex products. In addition, ammonia is added to Covol 298-1 to adjust the pH of the latex to approximately 6.5. Clearly, the majority of the ammonia present in this latex under ambient conditions will remain soluble in the water phase and associated with the carboxyl functional sites on the polymer.

In the event of a spill, we recommend that you immediately dike and contain the spill, and avoid dilution with water. Collect the spilled material, and dispose of according to all Federal, State and local laws and regulations. Covol 298-1 does not have an RQ (Reportable Quantity).

If you have any further questions, please don't hesitate to call

Regards,

Edward R. Husser
Emulsion Polymers
(517) 636-0365

nmw